

Abstract of the Disclosure

SERIAL MULTISTAGE AEROSOL DILUTER AND CONTROL SYSTEM

5 An exhaust gas sampling system for use in
connection with the sampling of an internal combustion
engine exhaust gas streams has a plurality of diluters
arranged in a serial array along an axial extent. A
source of engine exhaust gas is fluidically connected
10 to the plurality of serially arranged diluters so as
to supply an engine exhaust gas stream into each one
of the plurality of serially arranged diluters in a
serial manner. A source of dilution air fluidically
is connected to each one of the plurality of serially
15 arranged diluters so as to supply dilution air into
each one of the plurality of serially arranged
diluters. The dilution air is supplied into the
engine exhaust gas stream present within each one of
the plurality of serially arranged diluters so as to
20 progressively dilute the engine exhaust gas stream as
the engine exhaust gas stream flows through the
plurality of serially arranged diluters and thereby
replicate engine exhaust gas stream pollutant
atmospheric conditions, and sampling apparatus
25 fluidically connected to each one of the plurality of
serially arranged diluters for obtaining and analyzing
a sample of diluted engine exhaust gas stream present
within each one of the plurality of serially arranged
diluters.

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